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Development Economics

Office of the Vice President
The World Bank
Development Economics
June 1988
WPS 28

Temporary Windfalls and Compensation Arrangements

Bela Balassa

Developing countries that export a single major commodity subject to considerable price instability can even out temporary fluctuations in export prices by setting up compensation arrangements that hold the proceeds of a booming sector in a special fund outside the budget.

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Sharp fluctuations in the export prices of a major staple commodity have three jarring effects on economic activity. First, price hikes in a booming sector lead to a deterioration in the position of other exporters as resources are redirected to the desired sector and shortages emerge — and falling prices in a sagging sector affect other, unrelated exports. Second, governments tend to spend additional revenue generated during the boom and to keep on spending even after prices fall. Third, the export surge generates a domestic expansion, bumping up against production limits that bring on inflation and, if a reversal occurs, unemployment.

To reduce the effects of highly unstable commodity prices and increase the government's share in the proceeds of the booming sector, developing countries can funnel the revenue from higher export earnings into a special compensation fund. The fund works like this: By setting up a variable export levy somewhere between the actual export price and an agreed-upon base, the government appropriates the windfall revenues. In a downturn, the fund pays producers the base price.

The fund is set up to handle these transactions outside the budget. This has the effect of:

- Limiting price changes between domestic and imported goods.
- Holding down government spending when export earnings are high (since the spending programs may not be reversible).
- Reining in inflation to prevent a wage-price spiral.

Chile and Cameroon have set up such arrangements. In Chile the aim was to avoid currency appreciation in the event of temporary increases in copper prices. In Cameroon, the government has repatriated only part of the oil earnings, and included only some of these revenues in the budget.

Compensation schemes will work in other developing countries whose major export is a staple commodity, subject to sharp price fluctuations, and which accounts for a large share of gross domestic product. In this way, the exchange rate, the money supply, and the budget will be unaffected.

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TEMPORARY WINDFALLS AND COMPENSATION ARRANGEMENTS

Bela Balassa *

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Revised

TEMPORARY WINDFALLS AND COMPENSATION ARRANGEMENTS

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Introduction

Webster's New Collegiate Dictionary defines a windfall as "an unexpected or sudden gain or advantage." This definition includes windfalls of a permanent as well as of a temporary character. In the interrational trade context, the former has been the subject of a growing literature on Dutch disease, so named after the adverse economic effects of gas discoveries on other traded sectors in the Netherlands; the latter is relevant for the establishment of compensation arrangements to even out temporary fluctuations.

The aim of the compensation fund established under a World Bank structural adjustment loan to Chile in 1985 has been to avoid the appreciation of the real exchange rate in the event of temporary increases in copper prices. In Cameroon, only part of oil earnings have been repatriated since 1980 and only part of repatriated earnings have been included in the budget, so as to limit pressures to increase government expenditures.

In the following, the expression "compensation arrangements" will be used to encompass such schemes serving macroeconomic objectives. The paper will examine the case for establishing compensation arrangements and the forms they may take. As an introduction to the discussion, considerations introduced in regard to permanent and temporary windfalls will be reviewed, followed by a brief analysis of the experience of several countries with temporary windfalls.

Permanent vs. Temporary Windfall

In an excellent review article on the Dutch disease, Corden suggests that expansion in the booming sector (B) may come about in several ways;

> "(1) There has been a once-for-all exogenous technical improvement in B, represented by a favorable shift in the production function, this improvement being confined to the country concerned.
> (2) There has been a windfall discovery of new resources (i.e. increase in supply of the specific factor).
> (3) B produces only for export, with no sales at home, and there has been an exogenous rise in the price of its product on the world market relative to the price of imports" (1984, p. 360).

While Corden concentrates on (1), all three changes represent a permanent shift, even if under (3) domestic sales are introduced as Corden subsequently does. While a short reference is made to temporary changes, Corden concentrates on permanent changes as does the Dutch disease literature in general.

This literature makes a distinction between a spending effect and a resource movement effect. The former arises as some of the extra income of B is spent on non-traded goods whose prices will rise relative to tradeables, the prices of which are determined in the world market, leading to a real appreciation. The latter arises as the booming sector uses resources that are mobile within the economy. There will now be resource flows to the booming sector from the other tradeable sectors as well as from non-traded sectors, when the effects on the exchange rate will depend on the relative magnitudes of these flows.

Assume instead that the shift is considered temporary. Now, "in a static, one sector economy, with no government controls, long time horizons, and perfect markets for goods and factors ... a rational economic agent experiencing of windfall gain will save (invest) it all to enhance his

permanent income; incremental consumption is confined to what can be sustained from this enhanced permanent income" (Bevan, Collier, and Gunning, 1987, p. 481).

Movements in relative prices will re-emerge, however, once we introduce non-traded goods, leading to changes in real exchange rates, although these movements are mitigated if foreign assets can be purchased. In particular, to the extent that investment goods are non-traded, there will be an increase in non-traded goods prices as increased investments take place.

The outcome will further be affected by the distribution of the proceeds of the windfall. Part of the proceeds may accrue to the government (in the form of export and other taxes) and to commodity organizations, such as stabilization funds and marketing boards. The commodity organizations, in turn, may transfer some of the incremental financial resources to the government.

The government may also take action to increase its share in the proceeds of the windfall, by e.g. raising export tax rates. Its spending decisions, too, will have considerable importance in determining the economic effects of the windfall.

Government policy further extends to import protection, price control, investment control, and other measures affecting relative prices. Import controls, in particular, will contribute to the rise in the price of goods purchased by primary producers, increasing the transfer of purchasing power to elsewhere in the economy.

Finally, there will be cyclical effects. In the presence of capacity limitations, the boom will generate an inflationary process. This may not be

fully reversed after the boom ends, because of downward rigidities in wages and prices leading to unemployment (Gelb, 1988).

Experience of Countries with Temporary Windfalls

OPEC after 1973 was widely regarded as having occasioned a permanent windfall for oil producers as there were no expectations for a reversal of the quadrupling of oil prices that occurred. This may explain that the Dutch disease literature largely deals with oil and natural gas, whose price follows that of oil.

In turn, coffee in 1976-78 was an archetypical case of a temporary windfall. It was generally understood that the price of coffee rose substantially because of a frost in Brazil and that it would subsequently decline again (Beven, Collier, and Gunning, 1987, p. 409). Similar considerations apply to cocoa. These commodities are, therefore, of considerable interest for our subject.

The following discussion pertains to the experience of four countries, Cameroon, Côte d'Ivoire, Kenya, and Colombia, in the 1976-78 period. All of them are coffee producers; the first two are also producers of cocoa. In each case, production is largely exported.

Price increases varied among the four countries, depending on the relative importance of the arabica and the robusta varieties in the case of coffee, the role of long-term contracts in the case of cocoa, and the timing of sales for both commodities. At the same time, cocoa prices rose considerably less than coffee prices.

Taking 1975 as 100, the average price index for coffee in the 1976-78 period was as follows: Cameroon 228, Côte d'Ivoire 227, Kenya 279, and Colombia 288. The corresponding indices for cocoa were 154 for Cameroon and 178 for the Ivory Coast (Table 1).

Table 1

Changes in Export Prices, Volume, and Values, 1976-78
(1975 = 100)

		Price	Volume	Value
Cameroon	coffee	228	84	191
	cocoa	154	82	127
Côte d'Ivoire	coffee	227	99	225
	cocoa	178	119	212
Kenya	coffee	279	128	356
Colombia	coffee	288	78	224

Source: Davis (1983)

Note: Volume figures have been corrected so as to establish consistency with the value and the price figures, which have been considered to provide primary observations.

At the same time, coffee export volume increased to a considerable extent in Kenya while declining in Cameroon and Colombia and remaining practically unchanged in Côte d'Ivoire. Also, there was an increase of cocoa export volume in Côte d'Ivoire and a decline in Cameroon. All in all, Kenya experienced the largest increase in export values, with an index of 356, followed by Colombia with 224. The figures for the other two countries were 225 for coffee and 212 for cocoa in Côte d'Ivoire and 191 for coffee and 127 for cocoa in Cameroon (Table 1).

The next question concerns the distribution of the proceeds of the windfall. In Kenya, these accrued almost entirely to the producers. In Colombia, the producers got more than one-half and the stabilization fund of the Coffee Federation more than one-third, leaving only one-tenth to the government in the form of export taxes. In Cameroon, the share of the producers was less than two-fifths, compared with approximately one-fifth for the government, and more than one-third for the stabilization fund. Finally, while the government's share did not reach one-tenth, the stabilization fund had more than one-half of the proceeds, leaving one-third to the producers in Côte d'Ivoire (Table 2) 1/

This primary distribution was modified, however, by taxes other than those levied on exports as well as by the transfer to the government of some of the funds that accrued to commodity organizations. The question arises, then, how the budgetary position of the individual governments was affected by these additional receipts.

1/ The data do not always add up to 100.

the expansion of the monetary base accelerated, contributing to inflationary pressures.

The experience of the four countries indicates that the economic effects of a windfall are importantly influenced by the government policies applied. To begin with, the policies determine the distribution of the windfall. Furthermore, changes in relative prices are affected by the measures of protection applied. At the same time, government spending might aggravate the effect of the windfall and may continue after it has ended. Finally, the response of the monetary authorities to an externally-induced increase in the monetary base will affect the rate of inflation.

Arguments for Compensation Arrangements

Several arguments have been put forward for the establishment of schemes that would mitigate fluctuations in export prices and export earnings in developing countries. In this connection, the first question is if export price changes are exogenous to the country concerned since only in this event will export earnings move in a parallel fashion. Such will not be the case if the country in question can affect world market prices; now, changes in supply conditions will bring about price changes that will not parallel changes in export earnings.

Excluding this possibility for the time being, we will consider the arguments for earnings stabilization for a major staple. The assumption will be made throughout that export sales account for practically all sales of the product in question, so that domestic sales can be neglected. Institutional aspects of stabilization will be left to a later stage.

The first argument, basic to the Dutch disease literature and made in the Chile loan document, is that increases in export earnings in the booming

sector will lead to a deterioration of the competitive position of other traded goods industries. In the present context of temporary windfalls, an offsetting change will eventually occur, however. Also, the initial shock may be unfavorable, involving a fall in prices, as was the case for most primary products in the early 1980s.

Symmetry will now call for interventions, irrespective of whether the initial shock was favorable or unfavorable. In the latter case, a temporary decline in export earnings for a major staple will lead to a temporary depreciation in real terms that would give misleading signals for other traded productions.

A further argument relates to government behavior. In the application of Please's Law, it is argued that governments tend to spend all increments in revenues. From available evidence, it further appears that some of the spending continues even after the original impetus has died away. This will, then, create an assymetry in spending decisions. 1/

Another sort of assymetry pertains to cyclical effects. As the boom generates domestic expansion, capacity limitations will give rise to inflationary repercussions. Owing to downward rigidities in prices and wages, these may not be reversed in the event of an unfavorable shock, and unemployment may ensue.

We have considered so far the effects of fluctuations in export earnings on resource allocation, public spending, and the business cycle. It has further been suggested that fluctuations in export earnings discourage

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1/ James Buchanan would argue that this is not necessarily irrational from the political point of view if one considers decision making under pressure from interest groups.

savings and investment, thereby reducing long-term incomes.

Empirical studies do not, however, support the claim that export instability would reduce savings and investment (MacBean, 1966; Moran, 1983). In fact, the argument has been made that the opposite conclusion may ensue as the precautionary motive leads to increased savings when export earnings fluctuate (Knudsen and Parnes, 1975).

Finally, reference has been made to adverse microeconomic effects of price fluctuations on producers. An authoritative study showed, however, these effects to be small (Newbury and Stiglitz 1981). At any rate, it can be assumed that producers act rationally and will make adjustments in production in response to fluctuations in prices.

In contradistinction to much of the literature on price stabilization, this discussion focused on the macroeconomic rather than the microeconomic effects of export price fluctuations. These effects will operate even if producers are acting rationally, so that microeconomic efficiency is ensured.

Firstly, producers of other commodities will respond in a symmetrical fashion to changes in relative prices that may be generated directly or indirectly, through the exchange rate mechanism, by fluctuations in the price and earnings of a major staple. These changes are considered undesirable because they do not conform to the country's comparative advantage but rather respond to temporary factors.

Furthermore, there are assymetries that operate in the macroeconomy, notwithstanding rational actions by producers. These relate to ratchet effects in government spending as full reversability is often not assured following increases in revenues derived from higher price of a major staple.

Assymetries arise also in the course of the business cycle due to capacity limitations and downward rigidities in price and wages.

It may be concluded, then, that reducing fluctuations in export prices and earnings of a major staple would (1) limit changes in relative prices between traded and nontraded goods (real exchange rates); (2) avoid an increase in the spending stream of the government when prices are high, which may not be fully reversible, and (3) moderate the adverse effects of the business cycle. Among these arguments, (1) is symmetrical while (2) and (3) are assymetrical.

In the discussion it has been assumed that changes in export prices originate in the world market and do not affect the domestic supply of the staple. In this event, export prices and earnings change proportionately, unless output responds to price changes that may be neglected without much loss of realism in the short run.

But how about cases when price changes originate in sudden supply shifts in the country concerned as was the case of coffee in Brazil referred to earlier? Now, stabilizing prices may destabilize export earnings since compensating changes in quantities and prices would not be permitted to operate. Thus, if a shortfall of supply causes prices to rise, interventions that lower prices would also lower export earnings, thereby aggravating the situation of the producers of the staple.

Apart from Brazilian coffee, however, there are few cases, including Saudi oil and Bangladesh jute, where a country would dominate world supply. In other cases, an adjustment may be made in the decision rules in order to allow for price changes caused by shifts in the country's own supply.

If supply changes can be neglected, the problem remains if governments can appropriately forecast prices that is necessary for intervention to be stabilizing. As Peter Bauer (1954) first noted over thirty years ago, this presupposes that governments can foresee price trends in the world market. 1/ Given the importance of this issue, it deserves separate consideration.

Forecasting Prices

If compensation schemes involving a particular commodity, such as petroleum or coffee, are contemplated in several countries, it would be appropriate to use a common forecast in all the countries in question. This would avoid each country incurring a considerable expense in making forecasts and, if several forecasts are used, only one of them may be correct. The use of international forecasts would also avoid the problem, often found in developing countries, that prices are set overly low so as to generate government revenue under the guise of price stabilization.

One may then consider using a price forecast by international organizations, in the particular case the World Bank. This, in turn, raises the question of the Bank's experience with price forecasting.

Comparisons with other organizations show that the World Bank's price forecasts for 1983-85 were superior to those of the Bank of America and Wharton Econometric Forecasting Associates and were of similar quality as

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1/ "As all long-term price changes begin as short-term movement, it is not possible to say until well after the event whether a particular price change was a short-term fluctuation or phase of a long-term change. Thus, unless they are hedged about with specific safeguards, stabilization measures may easily result in a loss of contact with the trend" (Bauer, 1954, p. 274).

those of the International Monetary Fund. In the latter case, the continued exchange of information may have contributed to the similarity of the results.

At the same time, there appears to be a tendency towards optimistic forecasts by the Bank. In particular, forecasters retained their optimism after the 1973-74 and 1978-79 commodity price booms (Castelli and Kanemasu, 1985, pp. 41 and 60). More generally, "forecasters did not respond adequately to economic events during the period in which the forecasts were made, inasmuch as these events had an impact on prices in the target year. It appears that the forecasters were rather insensitive to current economic conditions and their impact on the future and tended to maintain their past forecasts until the need for changes became compellingly obvious (Duncan, 1986, p. 5).

The latter point is exemplified by World Bank forecasts for petroleum prices. In 1979, when the first World Development Report was prepared, it was projected that petroleum prices would remain constant in real terms. In the final printing, a footnote was added: "The basic set of projections made before the oil price increases of July 1, 1979 assume that petroleum prices would remain at their average level for the period 1975-78. Clearly, future projections will have to take account of the recent price increases and their repercussions" (World Development Report, 1979, p. 10).

Following this second oil shock, World Bank petroleum price projections were modified, assuming an average annual increase of 3 percent in real terms that did not materialize. Nor has the steep decline in petroleum prices in 1986 been foreseen in Bank forecasts.

In view of errors in price forecasts one should not make full adjustment for deviations of the actual export price from the reference

price. This is the case, for example, under the Chilean Income Compensation Fund when no adjustment is made within a certain limit, partial adjustment within a band of price differences, and full adjustment for changes exceeding the band.

In practice, the band may be set rather wide. This will limit the danger of acting on erroneous price forecasts and reduce the extent of government interventions. At the same time, the adverse effects of large price fluctuations will be mitigated.

Institutional Issues

Take first the case where a staple, subject to a compensation arrangement, is produced by a government enterprise. Under such an arrangement, the enterprise should pay (receive) compensation to (from) a fund established for this purpose. Payments to (from) the fund should not enter the regular foreign exchange holdings of the Central Bank, the money supply, or the government budget.

This would involve sterilizing flows that represent the difference (or part of the difference) between the export price and the reference price as far as the foreign exchange market and the money supply is concerned while keeping the amounts concerned outside the budgetary process. One may thus avoid that external shocks affect the exchange rate, the money supply, and the government budget.

The described procedure corresponds to that applied in Chile. In Cameroon, a more complicated procedure has been used, with part of the petroleum revenue deposited in overseas accounts and subsequently transferred to extrabudgetary accounts.

While copper in Chile and petroleum in Cameroon are largely produced by state enterprises [1/], the production of coffee and cocoa is carried out in a large number of small private enterprises. It has been suggested that price fluctuations may be reduced through the purchases and sales of marketing boards that accumulate stocks in the event of high prices and reduce stocks when prices are low. Such boards operate in the anglophone countries of Sub-Saharan Africa. [2/]

The marketing boards interfere, however, in private commerce and their operation is costly. Apart from administrative costs, the cost of operation includes the expense involved in investing scarce capital in inventories,the cost of stockage, as well as wastage in stockage. Also, marketing boards have often been used to generate revenue for political ends. Thus, in Nigeria the board is said to have served "the needs of ruling parties, governments and the Northern aristocracy to expand and consolidate networks of patronage" (Williams, 1985, p. 13).

Reductions in price and earnings fluctuations do not require the establishment of marketing boards but can be done as a financial transaction. This is the case in the francophone countries of Sub-Saharan Africa where the stabilization funds establish a reference price for the

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1/ In Chile, 21 percent of production originates with private firms that do not come under the compensation fund; in Cameroon the foreign operating companies have 30 percent of production and make royalty and profit tax payments to the budget.

2/ For an early discussion of marketing boards, see FAO, 1962. Recent discussions are in Abbott (1985) and Arhin, Hesp, and van der Laan (1985); the latter also examines the operations and the subsequent demise of marketing boards in two francophone Sub-Saharan African countries, Senegal and Upper Volta.

sugar were negatively correlated with fluctuations in cocoa, coffee, cotton, beef, and rice. In Kenya, this was the case between coffee and cotton as well as between cotton and tea (MacBean and Nguyen, 1987, pp. 140-1). Nevertheless, the quantitative impact of these compensating changes is relatively small.

The next question concerns the instability of the prices of the various commodities that loom large in the exports of the developing countries. Instability indices have been calculated with reference to deviations from a trend. They are shown in Table 5 for the periods 1951-60, 1961-70, and 1971-80 as well as for the entire 1951-80 period combined.

While there are differences among the three ten-year periods, a rather clear picture emerges. Sugar shows by far the largest price instability, followed by coffee, cocoa, and copper, with small differences among them. At the other end of the spectrum, there has been limited price instability in regard to tea, cotton, tobacco, and bananas.

Petroleum represents a special case, inasmuch as petroleum prices were stable in the postwar period until 1973, quadrupled in 1973-74, and tripled in 1979-80. Extending our horizon to 1987 would increase the instability of petroleum prices further, given the decline by one-half in nominal terms that occurred in recent years.

It follows that petroleum may be included with sugar, coffee, cocoa, and copper as commodities having high price instability. At the same time, as we have seen, these commodities loom large in the exports of the developing countries.

Further interest attaches to the share of merchandise exports in GDP. Ceteris paribus, the higher this share, the greater will be the fiscal

Table 5

Instability Indices [1]/for Product Prices [2]/

	1951-80	1951-60	1961-70	1971-80
Coffee	39.7	19.4	10.8	41.6
Cotton	13.9	4.4	4.0	14.3
Copper	35.7	20.6	17.9	21.2
Sugar	66.4	18.5	62.0	67.7
Tobacco	12.6	7.3	8.0	7.0
Cocoa	37.0	23.7	18.5	29.8
Bananas	10.0	6.4	6.9	6.7
Tea	17.2	16.3	3.7	18.5
Petroleum	55.5	7.9	2.4	40.5

Source: MacBean and Nguyen, 1987, p. 100 and (for petroleum) own calculation.

Note: 1/ The instability index has been defined as the root mean square deviation index: $\frac{1}{n} \sum [X_i - \hat{X}_i) \, |\hat{X}_i)^2$, where X_i and $\hat{X}_i$, respectively, are actual and trend values in year i.

2/ Bauxite, fertilizer, iron ore, and wood have been excluded because of a lack of a representative price.

and monetary effects of export price instability. Table 6 shows these ratios, together with the ratio of the largest and the two largest exports to GDP.

The export-GDP ratio is the highest for the Democratic Republic of Yemen (71.7 percent), followed by Mauritania (62.3 percent), Liberia (53.7 percent), Congo (50.8 percent), Malaysia (49.4 percent), Côte d'Ivoire (46.6 percent), and Mauritius (41.1 percent) Yemen (67.1 percent) is also in the lead in terms of the ratio of the largest export product to GDP. It is followed by the Congo (40.9 percent), Mauritania (34.6 percent), Liberia (33.4 percent), Mauritius (26.7 percent), and Guinea (22.3 percent).

Conclusions and Policy Recommendations

This paper has provided macroeconomic arguments for the use of compensation schemes. These arguments call for reducing fluctuations in export prices and earnings of a major staple, so as to (1) limit changes in relative prices between traded and non-traded goods (real exchange rates); (2) avoid an increase in the spending stream of the government when prices are high, which may not be fully reversible; and (3) moderate the adverse effects of the business cycle.

Compensation arrangements may be established in developing countries where exports are highly concentrated, are subject to considerable price fluctuations, and represent a high ratio to GDP. This will be the case, in particular, in countries exporting predominantly petroleum and coffee.

If the conditions warrant the establishment of a compensation arrangement, this may be accomplished by utilizing variable export levies and segregating the proceeds from the budget and monetary accounts. An appropriate solution may be to set up a separate fund at the Central Bank, to which the proceeds of variable export levies are paid. In this way, the exchange rate, the budget, and monetary variables will not be affected.

TABLE 6
RELATIVE IMPORTANCE OF EXPORTS

COUNTRY	TOTAL EXPORT GDP RATIO	RATIO OF LARGEST EXPORT PRODUCT TO TOTAL EXPORTS	RATIO OF LARGEST EXPORT PRODUCT TO GDP	RATIO OF TWO LARGEST EXPORT PRODUCTS TO TOTAL EXPORTS	RATIO OF TWO LARGEST EXPORT PRODUCTS TO GDP
TRINIDAD AND TOBAGO	28.9	39.8	11.5	70.5	20.4
VENEZUELA	25.3	58.3	14.7	95.4	24.1
ALGERIA	22.4	37.8	8.5	72.5	16.2
MALAYSIA	49.4	22.6	11.2	37.0	18.3
SYRIA	8.1	49.6	4.0	65.0	5.3
JORDAN	19.8	42.6	8.4	48.2	9.5
CHILE	23.9	30.8	7.4	42.4	10.1
COLOMBIA	10.4	50.5	5.3	63.2	6.6
COSTA RICA	25.6	28.1	7.2	55.3	14.1
GUATEMALA	8.8	32.4	2.9	40.4	3.6
ECUADOR	18.2	62.8	11.4	70.4	12.8
CONGO	50.8	80.6	40.9	86.2	43.8
MAURITIUS	41.1	64.9	26.7	67.2	27.6
PERU	20.9	18.9	4.0	36.0	7.5
JAMAICA	27.0	64.0	17.3	69.9	18.9
PARAGUAY	6.9	39.2	2.7	69.6	4.8
EL SALVADOR	11.8	58.3	6.9	61.4	7.3
CAMEROON	29.2	55.0	16.1	67.3	19.6
NIGERIA	17.1	94.7	16.2	96.9	16.6
DOMINICAN REP.	15.8	42.5	6.7	54.2	8.6
NICARAGUA	10.6	35.5	3.8	68.3	7.2
HONDURAS	22.4	36.1	8.1	59.6	13.4
ZIMBABWE	22.2	25.5	5.7	34.0	7.5
PAPUA NEW GUINEA	39.7	48.8	19.4	62.0	24.6
COTE D'IVOIRE	46.6	31.8	14.8	56.3	26 3
EGYPT	8.0	38.9	3.1	53.9	4.3
YEMEN	0.5	68.1	0.3	76.7	0.4
YEMEN DEM.	71.7	93.6	67.1	94.8	67.9
INDONESIA	21.8	50.4	11.0	66.5	14.5
LIBERIA	53.7	62.1	33.4	82.5	44.3
BOLIVIA	9.9	55.7	5.5	75.9	7.5
MAURITANIA	62.3	55.6	34.6	95.7	59.6
UGANDA	.	93.6	.	96.4	.
LAO, PDR	.	30.0	.	38.3	.
CHAD	21.7	53.6	11.6	88.8	19.3
ZAMBIA	21.1	85.4	18.0	88.0	18.6
SRI LANKA	22.3	43.2	9.6	52.2	11.6
GHANA	9.6	52.8	5.1	74.2	7.2
SENEGAL	20.5	23.7	4.9	40.2	8.2
SIERRA LEONE	17.1	22.2	3.8	41.6	7.1
GUINEA	23.5	95.0	22.3	97.5	22.9
SUDAN	5.4	25.7	1.4	45.2	2.4
TANZANIA	4.6	35.8	1.6	46.5	2.1
KENYA	16.7	25.4	4.2	45.9	7.6
SOMALIA	3.7	76.5	2.8	89.7	3.3
RWANDA	7.6	81.8	6.2	88.8	6.8
CENTRAL AFRICAN REP	18.9	34.9	6.6	44.4	8.4
BENIN	15.8	42.8	6.8	51.5	8.1
MADAGASCAR	11.7	35.9	4.2	65.9	7.7

TABLE 6 (CONT'D)
RELATIVE IMPORTANCE OF EXPORTS

COUNTRY	TOTAL EXPORT GDP RATIO	RATIO OF LARGEST EXPORT PRODUCT TO TOTAL EXPORTS	RATIO OF LARGEST EXPORT PRODUCT TO GDP	RATIO OF TWO LARGEST EXPORT PRODUCTS TO TOTAL EXPORTS	RATIO OF TWO LARGEST EXPORT PRODUCTS TO GDP
TOGO	34.6	51.1	17.7	68.8	23.8
BURUNDI	9.7	74.6	7.2	76.6	7.4
BURMA	5.0	30.9	1.5	47.5	2.4
ZAIRE	32.2	38.1	12.3	56.2	18.1
MALAWI	21.2	51.4	10.9	71.2	15.1
MALI	15.6	49.3	7.7	54.4	8.5
BURKINA FASO	6.8	54.7	3.7	69.3	4.7
ETHIOPIA	6.9	61.9	4.3	77.8	5.4

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